

**Florida Board of Professional Engineers
Rules Committee Minutes
August 17, 2016
9 a.m. – Crowne Plaza Orlando Universal
Orlando, FL**

1. Call to Order

Mr. Bracken called the meeting to order. Ms. Raybon called roll.

2. Roll Call, Determination of Quorum and Address Absences

Committee Members Present:

William Bracken, P.E., S.I., Chair
Roland Dove, P.E.
Kevin Fleming, P.E.
Warren Hahn, P.E.
Elizabeth Howard, Public Member

Others:

Larry Harris, Assistant Attorney General, Board Counsel

Staff Present:

Zana Raybon, Executive Director
John Rimes, Prosecuting Attorney
Rebecca Sammons, Assistant Executive Director

FBPE

FLORIDA BOARD OF
PROFESSIONAL ENGINEERS

3. Introduction of Guests and Announcements

Art Nortlindinger, P.E., IEEE

4. Review/Open **Rule 61G15-18.011 - Definitions** (update rule for Florida Fire Prevention Code)

Mr. Harris reported on the proposed language for Rule 61G15-18.011:

61G15-18.011 Definitions.

As used in Chapter 471, F.S., and in these rules where the context will permit the following terms have the following meanings:

(1) "Responsible Charge" shall mean that degree of control an engineer is required to maintain over engineering decisions made personally or by others over which the engineer

exercises supervisory direction and control authority. The engineer in responsible charge is the Engineer of Record as defined in subsection 61G15-30.002(1), F.A.C.

(a) The degree of control necessary for the Engineer of Record shall be such that the engineer:

1. Personally makes engineering decisions or reviews and approves proposed decisions prior to their implementation, including the consideration of alternatives, whenever engineering decisions which could affect the health, safety and welfare of the public are made. In making said engineering decisions, the engineer shall be physically present or, if not physically present, be available in a reasonable period of time, through the use of electronic communication devices, such as electronic mail, videoconferencing, teleconferencing, computer networking, or via facsimile transmission.

2. Judges the validity and applicability of recommendations prior to their incorporation into the work, including the qualifications of those making the recommendations.

3. Approves the inclusion of standard engineering design details into the engineering work. Standard engineering design details include details mandated or directed to be contained in engineering documents by governmental agencies (such as the Florida Department of Transportation); and details contained in engineering design manuals and catalogues that are generally accepted as authoritative in the engineering profession. In order to approve the inclusion of such details the Engineer of Record must conduct such reasonable analysis of the content of the standard detail(s) as is necessary in the sound professional judgment of the Engineer of Record to be assured that the inclusion of such detail(s) into the engineering work is acceptable engineering practice.

(b) Engineering decisions which must be made by and are the responsibility of the Engineer of Record are those decisions concerning permanent or temporary work which could create a danger to the health, safety, and welfare of the public, such as, but not limited to, the following:

1. The selection of engineering alternatives to be investigated and the comparison of alternatives for engineering works.
2. The selection or development of design standards or methods, and materials to be used.
3. The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.
4. The development and control of operating and maintenance procedures.

(c) As a test to evaluate whether an engineer is the Engineer of Record, the following shall be considered:

1. The engineer shall be capable of answering questions relevant to the engineering decisions made during the engineer's work on the project, in sufficient detail as to leave little doubt as to the engineer's proficiency for the work performed and involvement in said work. It is not necessary to defend decisions as in an adversary situation, but only to demonstrate that the engineer in responsible charge made them and possessed sufficient knowledge of the project to make them. Examples of questions to be answered by the engineer could relate to criteria for design, applicable codes and standards, methods of analysis, selection of materials and systems, economics of alternate solutions, and environmental considerations. The individuals should be able to clearly define the span and degree of control and how it was

exercised and to demonstrate that the engineer was answerable within said span and degree of control necessary for the engineering work done.

2. The engineer shall be completely in charge of, and satisfied with, the engineering aspects of the project.

3. The engineer shall have the ability to review design work at any time during the development of the project and shall be available to exercise judgment in reviewing these documents.

4. The engineer shall have personal knowledge of the technical abilities of the technical personnel doing the work and be satisfied that these capabilities are sufficient for the performance of the work.

(d) The term "responsible charge" relates to engineering decisions within the purview of the Professional Engineers Act and does not refer to management control in a hierarchy of professional engineers except as each of the individuals in the hierarchy exercises independent engineering judgement and thus responsible charge. It does not refer to administrative and personnel management functions. While an engineer may also have such duties in this position, it should not enhance or decrease one's status of being in responsible charge of the work. The phrase does not refer to the concept of financial liability.

(2) "Engineering Design" shall mean that the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and engineering sciences are applied to convert resources optimally to meet a stated objective. Among the fundamental elements of the design process are the establishment of objectives and criteria, synthesis, analysis, construction, testing and evaluation. Central to the process are the essential and complementary roles of synthesis and analysis. This definition is intended to be interpreted in its broadest sense. In particular, the words "system, component, or process" and "convert resources optimally" operate to indicate that sociological, economic, aesthetic, legal, ethical, etc., considerations can be included.

(3) The term "evaluation of engineering works and systems" as used in the definition in the practice of engineering set forth in Section 471.005(7), F.S., includes but is not limited to services provided by testing laboratories involving the following:

(a) The planning and implementation of any investigation or testing program for the purpose of developing design criteria either by an engineering testing laboratory or other professional engineers.

(b) The planning or implementation of any investigation, inspection or testing program for the purpose of determining the causes of failures.

(c) The preparation of any report documenting soils or other construction materials test data.

(d) The preparation of any report offering any engineering evaluation, advice or test results, whenever such reports go beyond the tabulation of test data. Reports which document soils or other construction materials test data will be considered as engineering reports.

(e) Services performed by any entity or provided by a testing laboratory for any entity subject to regulation by a state or federal regulatory agency which enforces standards as to

testing shall be exempt from this rule except where the services otherwise would require the participation of a professional engineer.

(4) "Certification" shall mean a statement signed and sealed by a professional engineer representing that the engineering services addressed therein, as defined in Section 471.005(6), F.S., have been performed by the professional engineer, and based upon the professional engineer's knowledge, information and belief, and in accordance with commonly accepted procedures consistent with applicable standards of practice, and is not a guaranty or warranty, either expressed or implied.

(5) The term "principal officer(s) of the business organization" as used in Section 471.023(1), F.S., means the (a) President, Vice President, Secretary or Treasurer of the Corporation, or Limited Liability Company (LLC); or (b) any other officer who has management responsibilities in the corporation or LLC, as documented by the corporate charter or bylaws so long as such documentation provides that such officer is empowered to bind the corporation or LLC in all of its activities which fall within the definition of the practice of engineering as that term is defined in Section 471.005(7), F.S.

(6) The term "Florida Building Code" shall mean the Florida Building Code, 5th Edition, (2014), and which is incorporated herein by reference. The material incorporated is copyrighted material that is available for public inspection and examination, but may not be copied, at the Department of State, Administrative Code and Register Section, Room 701, The Capitol, Tallahassee, Florida 32399-0250, and at the Board office, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303.

(7) The term "Florida Fire Prevention Code" shall mean the Florida Fire Prevention Code, 5th Edition, (2015), and which is incorporated herein by reference. The material incorporated is copyrighted material that is available for public inspection and examination, but may not be copied, at the Department of State, Administrative Code and Register Section, Room 701, The Capitol, Tallahassee, Florida 32399-0250, and at the Board office, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303.

Rulemaking Authority 471.008, 471.013(1)(a)1., 2. FS. Law Implemented 471.003(2)(f), 471.005(7), 471.005(6), 471.013(1)(a)1., 2., 471.023(1), 471.025(3), 471.033(1)(j) FS. History— New 6-23-80, Amended 12-19-82, 11-22-83, Formerly 21H-18.11, Amended 1-16-91, 4-4-93, Formerly 21H-18.011, Amended 12-22-99, 4-19-01, 10-16-02, 9-15-04, 6-5-08, 6-2-09, 2-2-12, 6-12-16.

Upon motion by Mr. Hahn, seconded by Mr. Dove, to approve the amendment to Rule 61G15-18.001, the motion passed.

Mr. Harris asked if the proposed rule amendment will have an adverse impact on small business or will proposed rule amendments would be likely to directly or indirectly increase regulatory costs to any entity (including government) in excess of \$200,000 in the aggregate in Florida within one (1) year after the implementation of the rule.

Upon motion by Mr. Hahn, seconded by Mr. Fleming, that the proposed rule amendment will have no adverse impact on small business and will not increase regulatory costs, the motion passed.

5. Review/Open **Rule 61G15-20.0010 – Application for Licensure by Examination** (address concerns from JAPC in reference to new application)

Mr. Harris discussed the concerns of Ms. Holladay.

Discussion followed on the application and the concerns raised by Ms. Holladay.

The committee asked that the applications be placed on the September 23rd FBPE Ratification agenda for discussion and approval.

6. Review/Open **Rule 61G15-20.0015 - Application for Licensure by Endorsement** (address concerns from JAPC in reference to new application)

This item was addressed under item #5.

7. Review/Open **Rule 61G15-23.001 & 23.005 - Signature, Date and Seal shall be Affixed & Procedures for Digitally Signing and Sealing Electronically Transmitted Plans, Specifications, Reports or Other Documents** (address concerns from JAPC)

Mr. Harris discussed the proposed changes to Rule 61G15-23.005 and the concerns of Ms. Holladay.

61G15-23.005 Procedures for Electronically Signing and Sealing Electronically Transmitted Plans, Specifications, Reports or Other Documents.

- (1) Engineering plans, specifications, reports or other documents which must be signed, dated and sealed in accordance with the provisions of Section 471.025, F.S., and Rule 61G15-23.001, F.A.C. may be signed electronically as provided herein by the professional engineer in responsible charge. As used herein, the term “electronic signature” shall have the meanings ascribed to them in Sections 668.003(2), (3) and (4), F.S.
- (2) A professional engineer utilizing an electronic signature to electronically sign and seal engineering plans, specifications, reports or other documents using the Florida Department of Transportation (FDOT) Professionals' Electronic Data Delivery System (PEDDS) software shall:
 - (a) Create a “signature” file that contains the licensee’s given name, the licensee’s license number, a brief overall description of the engineering documents to be signed and sealed, a list of the electronic files to be signed and sealed, and the SHA-1 authentication code or Secure Hash Standard for each electronic file to be signed and sealed. The SHA-1

authentication code is described in Federal Information Processing Standard Publication 180-4 "Secure Hash Standard," August 2015, which is hereby adopted and incorporated by reference by the Board and can be obtained from the Internet Website: <http://www.flrules.org/Gateway/reference.asp?No=Ref-05976>.

- (b) Create a "signature" report that contains the licensee's given name, the licensee's license number, a brief overall description of the engineering documents to be signed and sealed and the SHA-1 authentication code of the signature file;
 - (c) Print and manually sign, date and seal the signature report in compliance with Rule 61G15-23.003, F.A.C.;
 - (d) Transmit the signed, dated and sealed signature report to the receiving party along with the signed, dated and sealed signature file either by hardcopy or electronic scan, if scanned and sent electronically. The hardcopy signed and sealed report shall be retained by the licensee in accordance with Rule 61G15-30.009, F.A.C.; and
 - (e) The signature file is considered to be signed and sealed if the signature file's authentication code matches the authentication code on the manually signed, dated and sealed signature report. Each electronic file listed within the signed and sealed signature file is considered to be signed and sealed if the listed SHA-1 authentication code in the signature file matches the electronic file's SHA-1 authentication code.
- (3) A professional engineer utilizing an electronic signature to electronically sign and seal engineering plans, specification, reports or other documents other than through the FDOT PEDDS system shall:
- (a) Create a static electronic version, such as PDF, of the engineering document(s) that is to be signed and sealed;
 - (b) Compute an SHA-1 authentication code for each electronic engineering document;
 - (c) Create a printable "signature report" that contains the licensee's given name, the licensee's license number, and a list of the electronic files to be signed and sealed that includes a brief description of each engineering document and the SHA-1 authentication code of each engineering document;
 - (d) Print and manually sign, date and seal the "signature report" in compliance with Rule 61G15-23.003, F.A.C.; and
 - (e) Transmit the signed, dated and sealed "signature report" to the receiving party along with each electronically signed, dated and sealed engineering document either by hardcopy or electronic scan, if scanned and sent electronically. The hardcopy signed and sealed report shall be retained by the licensee in accordance with Rule 61G15-30.009, F.A.C.
- Each engineering document is considered to be electronically signed and sealed if the document's SHA-1 authentication code matches the SHA-1 authentication code on the physically signed, dated and sealed "signature report".
- (4) The affixing of an electronic signature to engineering plans, specifications, reports or other documents as provided herein shall constitute the signing and sealing of such items.
 - (a) A digitally created seal as set forth in Rule 61G15-23.002, F.A.C. may be placed where it would appear if the item were being physically signed, dated and sealed.

- (b) The date that the electronic signature is to be placed into the document must appear on the document in accordance with subsection 61G15-23.001(5), F.A.C. and where it would appear if the item were being physically signed, dated and sealed.
- (c) A scanned, facsimile, digitally created or copied image of the licensee's signature shall not be used on electronically signed and sealed engineering plans, specifications, reports or other documents.
- (d) The engineering plans, specifications, reports or other documents being electronically signed and sealed shall include text to indicate the following and place it where an original signature would appear if the item were being physically signed, dated and sealed:
 1. The same information required by subsection 61G15-23.002(2), F.A.C. if a digitally created seal is not used,
 2. The item has been electronically signed and sealed using a SHA-1 authentication codes; and,
 3. Printed copies of the document are not considered signed and sealed and all SHA-1 authentication code must be verified on any electronic copies.
- (e) Formatting of seals and text similar to that depicted below may be used.
 1. When a digitally created seal is used:



This item has been electronically signed and sealed by C. S. Hammatt, PE. On [DATE] using a *SHA-1* authentication code.

Printed copies of this document are not considered signed and sealed and the *SHA-1* authentication code must be verified on any electronic copies.

- 2. When a digitally created seal is not used:

C. S. Hammatt, State of Florida, Professional Engineer, License No. X

This item has been electronically signed and sealed by C. S. Hammatt, PE. On [DATE] using a *SHA-1* authentication code.

Printed copies of this document are not considered signed and sealed and the *SHA-1* authentication code must be verified on any electronic copies.

Rulemaking Authority 471.025(1), 471.033(2), 471.008 FS. Law Implemented 471.025, 668.006 FS. History—New 11-3-15, Amended 2-3-16,

Discussion followed.

Upon motion by Mr. Hahn, seconded by Mr. Fleming, to approve the amendments to Rule 61G15-23.005, the motion passed.

Mr. Harris asked if the proposed rule amendment will have an adverse impact on small business or will proposed rule amendments would be likely to directly or indirectly increase regulatory costs to any entity (including government) in excess of \$200,000 in the aggregate in Florida within one (1) year after the implementation of the rule.

Upon motion by Mr. Hahn, seconded by Mr. Fleming, that the proposed rule amendment will have no adverse impact on small business and will not increase regulatory costs, the motion passed.

8. Review/Open **Rule 61G15-30.003 – Engineering Document Classification** (follow up from the June 2016 Rules Committee Meeting)

Mr. Harris reported on the proposed rule amendment to Rule 61G15-30.003:

61G15-30.003 Minimum Requirements for Engineering Documents.

- (1) Engineering Documents are prepared in the course of performing engineering services. When prepared for inclusion with an application for a general building permit, the Documents shall meet all Engineer's Responsibility Rules, set forth in Chapters 61G15- 31, 61G15-32, 61G15-33, and 61G15-34, F.A.C., and be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the proposed work it will conform to all the provisions of the Florida Building Code, adopted in Section 553.73, F.S., and applicable standards, codes, laws, ordinances, rules and regulations in effect at the time the Documents are sealed, signed and dated prepared, as determined by the AHJ. The Documents shall include:
- (a) Information that provides material specifications required for the safe operation of the system that is a result of engineering calculations, knowledge and experience.
 - (b) If the Engineering Documents are intended to comply with requirements of any edition of List-Federal, State, Municipal, or and-County standards, codes, ordinances, laws, or and-rules, other than those currently in effect, with their effective dates, that the Engineering Documents must clearly state the edition and effective dates the Documents are intended to conform to.
 - (c) Information, as determined by the Engineer of Record, needed for the safe and efficient operation of the system.
 - (d) List engineering design criteria; reference project specific studies, reports, and delegated Engineering Documents.
 - (e) Identify clearly elements of the design that vary from the governing standards and depict/identify the alternate method used to ensure compliance with the stated purpose of these Responsibility Rules.
- (2) Engineers shall legibly indicate their name and business address, on Engineering Documents. Engineering Documents which are issued for preliminary or conceptual use, shall clearly note the intended purpose of such Documents.
- (3) When elements of the project are shown on an Engineering Document only for information or clarification and the Engineer does not intend to accept responsibility for the

elements, the engineer shall clearly note on the ~~D~~documents the extent of his responsibility.

(4) Engineering ~~Documents~~ drawings shall be legible and clearly define and delineate the work in the project. They must also comply with the requirements of Chapter 61G15-23, F.A.C., Seals.

(5) Engineers shall clearly note on any preliminary ~~E~~Engineering ~~D~~documents that such ~~D~~documents are not in final form, but are being transmitted to the ~~AHJ public agency~~ to receive agency reviews, comments and interpretations. The ~~D~~documents may subsequently be revised by the engineer to reflect resolution of issues with the ~~AHJ public agency~~ prior to final action by the ~~AHJ agency~~. Changes, revisions and modifications to a project may prompt additional document submittal for ~~AHJ agency~~ approval action on the same project.

Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g), 471.025(3) FS. History—New 1-26-93, Formerly 21H-30.003, Amended 11-13-08.

Discussion followed.

Upon motion by Mr. Hahn, seconded by Mr. Dove, to approve the amendments to Rule 61G15-30.003, the motion passed.

Mr. Harris asked if the proposed rule amendment will have an adverse impact on small business or will proposed rule amendments would be likely to directly or indirectly increase regulatory costs to any entity (including government) in excess of \$200,000 in the aggregate in Florida within one (1) year after the implementation of the rule.

Upon motion by Mr. Hahn, seconded by Mr. Fleming, that the proposed rule amendment will have no adverse impact on small business and will not increase regulatory costs, the motion passed.

9. Review/Open Rule **61G15-32 - Responsibility Rules of Professional Engineers Concerning the Design of Fire Protection Systems**

Mr. Harris reported on the proposed rule amendments to 61G15-32.

Discussion followed. The committee decided to table this issue and have staff and Mr. Harris talk to interested parties within the industry and bring this item back to the committee in November.

10. Old Business

11. New Business

12. Adjourn

a. Date, Time and Location of Next Rules Committee Meeting

November 9, 2016 at 8:30 a.m.

FBPE Office

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